

ATTACHMENT A
DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER QUALITY CRITERIA MONITORING

CASRN#	CHEMICAL	EPA ANALYSIS NO.	QUANTIFICATION LEVEL ⁽¹⁾	REPORTING RESULTS	SAMPLE TYPE ⁽²⁾	SAMPLE FREQUENCY
METALS						
7440-36-0	Antimony, dissolved	(3)	1.4		G or C	1/3 MO
7440-38-2	Arsenic, dissolved	(3)	1.0		G or C	1/3 MO
7440-43-9	Cadmium, dissolved	(3)	0.3		G or C	1/3 MO
16065-83-1	Chromium III, dissolved ⁽³⁾	(3)	3.6		G or C	1/3 MO
18540-29-9	Chromium VI, dissolved ⁽³⁾	(3)	1.6		G or C	1/3 MO
7440-50-8	Copper, dissolved	(3)	0.50		G or C	1/3 MO
7439-92-1	Lead, dissolved	(3)	0.50		G or C	1/3 MO
7439-97-6	Mercury, dissolved	(3)	1.0		G or C	1/3 MO
7440-02-0	Nickel, dissolved	(3)	0.94		G or C	1/3 MO
7782-49-2	Selenium, Total Recoverable	(3)	2.0		G or C	1/3 MO
7440-22-4	Silver, dissolved	(3)	0.20		G or C	1/3 MO
7440-28-0	Thallium, dissolved	(4)	(5)		G or C	1/3 MO
7440-66-6	Zinc, dissolved	(3)	3.6		G or C	1/3 MO
PESTICIDES/PCB'S						
309-00-2	Aldrin	608	0.05		G or C	1/3 MO
57-74-9	Chlordane	608	0.2		G or C	1/3 MO
2921-88-2	Chlorpyrifos (synonym = Dursban)	(4)	(5)		G or C	1/3 MO
72-54-8	DDD	608	0.1		G or C	1/3 MO
72-55-9	DDE	608	0.1		G or C	1/3 MO
50-29-3	DDT	608	0.1		G or C	1/3 MO
8065-48-3	Demeton	(4)	(5)		G or C	1/3 MO
333-41-5	Diazinon	(4)	(5)		G or C	1/3 MO
60-57-1	Dieldrin	608	0.1		G or C	1/3 MO
959-98-8	Alpha-Endosulfan	608	0.1		G or C	1/3 MO
33213-65-9	Beta-Endosulfan	608	0.1		G or C	1/3 MO
1031-07-8	Endosulfan Sulfate	608	0.1		G or C	1/3 MO

72-20-8	Endrin	608	0.1		G or C	1/3 MO
7421-93-4	Endrin Aldehyde	(4)	(5)		G or C	1/3 MO
86-50-0	Guthion	(4)	(5)		G or C	1/3 MO
76-44-8	Heptachlor	608	0.05		G or C	1/3 MO
1024-57-3	Heptachlor Epoxide	(4)	(5)		G or C	1/3 MO
319-84-6	Hexachlorocyclohexane Alpha-BHC	608	(5)		G or C	1/3 MO
319-85-7	Hexachlorocyclohexane Beta-BHC	608	(5)		G or C	1/3 MO
58-89-9	Hexachlorocyclohexane Gamma-BHC or Lindane	608	(5)		G or C	1/3 MO
143-50-0	Kepone	(9)	(5)		G or C	1/3 MO
121-75-5	Malathion	(4)	(5)		G or C	1/3 MO
72-43-5	Methoxychlor	(4)	(5)		G or C	1/3 MO
2385-85-5	Mirex	(4)	(5)		G or C	1/3 MO
56-38-2	Parathion	(4)	(5)		G or C	1/3 MO
1336-36-3	PCB Total	608	7.0		G or C	1/3 MO
8001-35-2	Toxaphene	608	5.0		G or C	1/3 MO

BASE NEUTRAL EXTRACTABLES

83-32-9	Acenaphthene	625	10.0		G or C	1/3 MO
120-12-7	Anthracene	625	10.0		G or C	1/3 MO
92-87-5	Benzidine	(4)	(5)		G or C	1/3 MO
56-55-3	Benzo (a) anthracene	625	10.0		G or C	1/3 MO
205-99-2	Benzo (b) fluoranthene	625	10.0		G or C	1/3 MO
207-08-9	Benzo (k) fluoranthene	625	10.0		G or C	1/3 MO
50-32-8	Benzo (a) pMOene	625	10.0		G or C	1/3 MO
111-44-4	Bis 2-Chloroethyl Ether	(4)	(5)		G or C	1/3 MO
108-60-1	Bis 2-Chloroisopropyl Ether	(4)	(5)		G or C	1/3 MO
85-68-7	Butyl benzyl phthalate	625	10.0		G or C	1/3 MO
91-58-7	2-Chloronaphthalene	(4)	(5)		G or C	1/3 MO
218-01-9	Chrysene	625	10.0		G or C	1/3 MO
53-70-3	Dibenz(a,h)anthracene	625	20.0		G or C	1/3 MO
84-74-2	Dibutyl phthalate (synonym = Di-n-Butyl Phthalate)	625	10.0		G or C	1/3 MO
95-50-1	1,2-Dichlorobenzene	624	10.0		G or C	1/3 MO

541-73-1	1,3-Dichlorobenzene	624	10.0		G or C	1/3 MO
106-46-7	1,4-Dichlorobenzene	624	10.0		G or C	1/3 MO
91-94-1	3,3-Dichlorobenzidine	(4)	(5)		G or C	1/3 MO
84-66-2	Diethyl phthalate	625	10.0		G or C	1/3 MO
117-81-7	Bis-2-ethylhexyl phthalate	625	10.0		G or C	1/3 MO
131-11-3	Dimethyl phthalate	(4)	(5)		G or C	1/3 MO
121-14-2	2,4-Dinitrotoluene	625	10.0		G or C	1/3 MO
122-66-7	1,2-Diphenylhydrazine	(4)	(5)		G or C	1/3 MO
206-44-0	Fluoranthene	625	10.0		G or C	1/3 MO
86-73-7	Fluorene	625	10.0		G or C	1/3 MO
118-74-1	Hexachlorobenzene	(4)	(5)		G or C	1/3 MO
87-68-3	Hexachlorobutadiene	(4)	(5)		G or C	1/3 MO
77-47-4	Hexachlorocyclopentadiene	(4)	(5)		G or C	1/3 MO
67-72-1	Hexachloroethane	(4)	(5)		G or C	1/3 MO
193-39-5	Indeno(1,2,3-cd)pyrene	625	20.0		G or C	1/3 MO
78-59-1	Isophorone	625	10.0		G or C	1/3 MO
98-95-3	Nitrobenzene	625	10.0		G or C	1/3 MO
62-75-9	N-Nitrosodimethylamine	(4)	(5)		G or C	1/3 MO
621-64-7	N-Nitrosodi-n-propylamine	(4)	(5)		G or C	1/3 MO
86-30-6	N-Nitrosodiphenylamine	(4)	(5)		G or C	1/3 MO
129-00-0	Pyrene	625	10.0		G or C	1/3 MO
120-82-1	1,2,4-Trichlorobenzene	625	10.0		G or C	1/3 MO

VOLATILES

107-02-8	Acrolein	(4)	(5)		G	1/3 MO
107-13-1	Acrylonitrile	(4)	(5)		G	1/3 MO
71-43-2	Benzene	624	10.0		G	1/3 MO
75-25-2	Bromoform	624	10.0		G	1/3 MO
56-23-5	Carbon Tetrachloride	624	10.0		G	1/3 MO
108-90-7	Chlorobenzene (synonym = monochlorobenzene)	624	50.0		G	1/3 MO
124-48-1	Chlorodibromomethane	624	10.0		G	1/3 MO
67-66-3	Chloroform	624	10.0		G	1/3 MO

75-09-2	Dichloromethane (synonym = methylene chloride)	624	20.0		G	1/3 MO
75-27-4	Dichlorobromomethane	624	10.0		G	1/3 MO
107-06-2	1,2-Dichloroethane	624	10.0		G	1/3 MO
75-35-4	1,1-Dichloroethylene	624	10.0		G	1/3 MO
156-60-5	1,2-trans-dichloroethylene	(4)	(5)		G	1/3 MO
78-87-5	1,2-Dichloropropane	(4)	(5)		G	1/3 MO
542-75-6	1,3-Dichloropropene	(4)	(5)		G	1/3 MO
100-41-4	Ethylbenzene	624	10.0		G	1/3 MO
74-83-9	Methyl Bromide	(4)	(5)		G	1/3 MO
79-34-5	1,1,2,2-Tetrachloroethane	(4)	(5)		G	1/3 MO
127-18-4	Tetrachloroethylene	624	10.0		G	1/3 MO
10-88-3	Toluene	624	10.0		G	1/3 MO
79-00-5	1,1,2-Trichloroethane	(4)	(5)		G	1/3 MO
79-01-6	Trichloroethylene	624	10.0		G	1/3 MO
75-01-4	Vinyl Chloride	624	10.0		G	1/3 MO

ACID EXTRACTABLES ⁽⁶⁾

95-57-8	2-Chlorophenol	625	10.0		G or C	1/3 MO
120-83-2	2,4 Dichlorophenol	625	10.0		G or C	1/3 MO
105-67-9	2,4 Dimethylphenol	625	10.0		G or C	1/3 MO
51-28-5	2,4-Dinitrophenol	(4)	(5)		G or C	1/3 MO
534-52-1	2-Methyl-4,6-Dinitrophenol	(4)	(5)		G or C	1/3 MO
25154-52-3	Nonylphenol	(5)	(5)		G or C	1/3 MO
87-86-5	Pentachlorophenol	625	50.0		G or C	1/3 MO
108-95-2	Phenol	625	10.0		G or C	1/3 MO
88-06-2	2,4,6-Trichlorophenol	625	10.0		G or C	1/3 MO

MISCELLANEOUS

776-41-7	Ammonia as NH3-N	350.1	200		C	1/3 MO
16887-00-6	Chlorides	(4)	(5)		C	1/3 MO
57-12-5	Cyanide, Free	(4)	10.0		G	1/3 MO
N/A	<i>E. coli</i> (N/CML)	(4)	(5)		G	1/3 MO
7783-06-4	Hydrogen Sulfide	(5)	(5)		G	1/3 MO

60-10-5	Tributyltin ⁽⁷⁾	NBSR 85-3295	(5)		G or C	1/3 MO
	Hardness (mg/L as CaCO ₃)	(4)	(5)		G or C (10)	1/3 MO

Name of Principal Exec. Officer or Authorized Agent/Title

Signature of Principal Officer or Authorized Agent/Date

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C. Sec. 1001 and 33 U.S.C. Sec. 1319. (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 months and 5 years.)

FOOTNOTES:

- (1) Quantification level (QL) is defined as the lowest concentration used for the calibration of a measurement system when the calibration is in accordance with the procedures published for the required method.

The quantification levels indicated for the metals are actually Specific Target Values developed for this permit. The Specific Target Value is the approximate value that may initiate a wasteload allocation analysis. Target values are not wasteload allocations or effluent limitations. The Specific Target Values are subject to change based on additional information such as hardness data, receiving stream flow, and design flows.

Units for the quantification level are micrograms/liter unless otherwise specified.

Quality control and quality assurance information shall be submitted to document that the required quantification level has been attained.

- (2) Sample Type

G = Grab = An individual sample collected in less than 15 minutes. Substances specified with "grab" sample type shall only be collected as grabs. The permittee may analyze multiple grabs and report the average results provided that the individual grab results are also reported. For grab metals samples, the individual samples shall be filtered and preserved immediately upon collection.

C = Composite = A 24-hour (**PW - Revise as required to require same composite duration as BOD₅**) composite unless otherwise specified. The composite shall be a combination of individual samples, taken proportional to flow, obtained at hourly or smaller time intervals. The individual samples may be of equal volume for flows that do not vary by +/- 10 percent over a 24-hour period.

- (3) A specific analytical method is not specified; however a target value for each metal has been established. An appropriate method to meet the target value shall be selected from the following list of EPA methods (or any approved method presented in 40 CFR Part 136). If the test result is less than the method QL, a "<[QL]" shall be reported where the actual analytical test QL is substituted for [QL].

<u>Metal</u>	<u>Analytical Method</u>
Antimony	1638; 1639
Arsenic	1632
Chromium ⁽⁸⁾	1639

Cadmium	1637; 1638; 1639; 1640
Chromium VI	1639
Copper	1638; 1640
Lead	1637; 1638; 1640
Mercury	1631
Nickel	1638; 1639; 1640
Selenium	1638; 1639
Silver	1638
Zinc	1638; 1639

- (4) Any approved method presented in 40 CFR Part 136.
- (5) The QL is at the discretion of the permittee. For any substances addressed in 40 CFR Part 136, the permittee shall use one of the approved methods in 40 CFR Part 136.
- (6) Testing for phenols requires continuous extraction.
- (7) Analytical Methods: NBSR 85-3295 or DEQ's approved analysis for Tributyltin may also be used [See A Manual for the Analysis of Butyltins in Environmental Systems by the Virginia Institute of Marine Science, dated November 1996].
- (8) Both Chromium III and Chromium VI may be measured by the total chromium analysis. If the result of the total chromium analysis is less than or equal to the lesser of the Chromium III or Chromium VI method QL, the results for both Chromium III and Chromium VI can be reported as "<[QL]", where the actual analytical test QL is substituted for [QL].
- (9) The lab may use SW846 Method 8270D provided the lab has an Initial Demonstration of Capability, has passed a PT for Kepone, and meets the acceptance criteria for Kepone as given in Method 8270D
- (10) The sample type for Hardness (as CaCO₃) shall match the sample type selected for Dissolved Metals.